IFW16

RAW SEQUENCE LISTING DATE: 08/27/2004
PATENT APPLICATION: **US/10/010,731A** TIME: 10:27:28

Input Set : **A:\11899.0193.DVUS02.ST25.txt**
Output Set: **N:\CRF4\08272004\J010731A.raw**

```
 3 <110> APPLICANT: Liang, Jihong
 4         Shah, Dilip Maganlal
 5         Wu, Yonnie S.
 6         Rosenberger, Cindy A.
 7         Hakimi, Salim
 9 <120> TITLE OF INVENTION: Antifungal Polypeptide and Methods for Controlling Plant
10         Pathogenic Fungi
12 <130> FILE REFERENCE: 11899.0193.DVUS02
14 <140> CURRENT APPLICATION NUMBER: 10/010,731A
15 <141> CURRENT FILING DATE: 2001-11-13
17 <150> PRIOR APPLICATION NUMBER: 09/003,198
18 <151> PRIOR FILING DATE: 2000-06-07
20 <160> NUMBER OF SEQ ID NOS: 19
22 <170> SOFTWARE: PatentIn version 3.2
24 <210> SEQ ID NO: 1
25 <211> LENGTH: 43
26 <212> TYPE: PRT
27 <213> ORGANISM: Alfalfa
30 <220> FEATURE:
31 <221> NAME/KEY: misc_feature
32 <222> LOCATION: (40)..(41)
33 <223> OTHER INFORMATION: Xaa can be any naturally occurring amino acid
35 <400> SEQUENCE: 1
37 Arg Thr Cys Glu Asn Leu Ala Asp Lys Tyr Arg Gly Pro Cys Phe Ser
38 1               5                   10                  15
41 Gly Cys Asp Thr His Cys Thr Thr Lys Glu Asn Ala Val Ser Gly Arg
42              20                  25                  30
45 Cys Arg Asp Asp Phe Arg Cys Xaa Xaa Thr Lys
46          35                  40
49 <210> SEQ ID NO: 2
50 <211> LENGTH: 45
51 <212> TYPE: PRT
52 <213> ORGANISM: Alfalfa
54 <400> SEQUENCE: 2
56 Arg Thr Cys Glu Asn Leu Ala Asp Lys Tyr Arg Gly Pro Cys Phe Ser
57 1               5                   10                  15
60 Gly Cys Asp Thr His Cys Thr Thr Lys Glu Asn Ala Val Ser Gly Arg
61              20                  25                  30
64 Cys Arg Asp Asp Phe Arg Cys Trp Cys Thr Lys Arg Cys
65          35                  40                  45
68 <210> SEQ ID NO: 3
69 <211> LENGTH: 33
70 <212> TYPE: DNA
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W--> appears at line 45

ENTERED

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 71 <213> ORGANISM: Artificial sequence
 73 <220> FEATURE:
 74 <223> OTHER INFORMATION: Oligonucleotide
 77 <220> FEATURE:
 78 <221> NAME/KEY: misc_feature
 79 <222> LOCATION: (16)..(16)
 80 <223> OTHER INFORMATION: N = inosine
 82 <220> FEATURE:
 83 <221> NAME/KEY: misc_feature
 84 <222> LOCATION: (19)..(19)
 85 <223> OTHER INFORMATION: D = A or G or T
 87 <220> FEATURE:
 88 <221> NAME/KEY: misc_feature
 89 <222> LOCATION: (22)..(22)
 90 <223> OTHER INFORMATION: N = inosine
 92 <220> FEATURE:
 93 <221> NAME/KEY: misc_feature
 94 <222> LOCATION: (24)..(24)
 95 <223> OTHER INFORMATION: K = G or T
 97 <220> FEATURE:
 98 <221> NAME/KEY: misc_feature
 99 <222> LOCATION: (25)..(25)
100 <223> OTHER INFORMATION: D = A or G or T
102 <220> FEATURE:
103 <221> NAME/KEY: misc_feature
104 <222> LOCATION: (28)..(28)
105 <223> OTHER INFORMATION: D = A or G or T
107 <220> FEATURE:
108 <221> NAME/KEY: misc_feature
109 <222> LOCATION: (31)..(31)
110 <223> OTHER INFORMATION: D = A or G or T
112 <400> SEQUENCE: 3
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W--> 113 gggaattcgg atccancadc anckdaadtc dtc   33
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116 <210> SEQ ID NO: 4
117 <211> LENGTH: 30
118 <212> TYPE: DNA
119 <213> ORGANISM: Artificial sequence
121 <220> FEATURE:
122 <223> OTHER INFORMATION: Oligonucleotide
125 <220> FEATURE:
126 <221> NAME/KEY: misc_feature
127 <222> LOCATION: (18)..(29)
128 <223> OTHER INFORMATION: N = inosine
130 <400> SEQUENCE: 4
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W--> 131 gggaattcgg atccgggnng ggnngggnng   30
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134 <210> SEQ ID NO: 5
135 <211> LENGTH: 200
136 <212> TYPE: DNA
137 <213> ORGANISM: Alfalfa
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      141 <221> NAME/KEY: misc_feature
      142 <222> LOCATION: (17)..(17)
      143 <223> OTHER INFORMATION: N = A or C or G or T
      145 <400> SEQUENCE: 5
W--> 146 gggggggggg gggggncag gcttatgctt cctcttcttg gttctctttg ttgcacaaga    60
      148 aattgtggtg acagaagcca gaacatgtga gaatttggca gataaatata ggggaccatg   120
      150 ctttagtggt tgtgacactc actgcacaac caaagagaac gcagttagtg gaaggtgtag   180
      152 ggacgacttc cgctgctgct                                                 200
      155 <210> SEQ ID NO: 6
      156 <211> LENGTH: 293
      157 <212> TYPE: DNA
      158 <213> ORGANISM: Alfalfa
      161 <220> FEATURE:
      162 <221> NAME/KEY: misc_feature
      163 <222> LOCATION: (17)..(265)
      164 <223> OTHER INFORMATION: N = A or C or G or T
      166 <400> SEQUENCE: 6
W--> 167 gggggggggg gggggntgt caaacacaca cataacacat aagtgaccgt gagtcattaa    60
      169 atttatatat attcatcaat ctaatcaaac tatggagaag aaatcactag ctggcttatg   120
      171 cttcctcttc ctcgttctct ttgttgaaca agaaattatg gtgaccgagg cagctacttg   180
      173 tgagaatttg gctaacacat acaggggacc atgcttcggt ggttgtgact ttcactgcaa   240
      175 aaccaaagaa cacttactta gcggnaggtg caggacgac ttccgctgct gct           293
      178 <210> SEQ ID NO: 7
      179 <211> LENGTH: 33
      180 <212> TYPE: DNA
      181 <213> ORGANISM: Artificial sequence
      183 <220> FEATURE:
      184 <223> OTHER INFORMATION: Oligonucleotide
      187 <220> FEATURE:
      188 <221> NAME/KEY: misc_feature
      189 <222> LOCATION: (17)..(17)
      190 <223> OTHER INFORMATION: D = A or G or T
      192 <220> FEATURE:
      193 <221> NAME/KEY: misc_feature
      194 <222> LOCATION: (19)..(20)
      195 <223> OTHER INFORMATION: B = C or G or T
      197 <220> FEATURE:
      198 <221> NAME/KEY: misc_feature
      199 <222> LOCATION: (22)..(25)
      200 <223> OTHER INFORMATION: N = inosine
      202 <220> FEATURE:
      203 <221> NAME/KEY: misc_feature
      204 <222> LOCATION: (28)..(28)
      205 <223> OTHER INFORMATION: B = C or G or T
      207 <220> FEATURE:
      208 <221> NAME/KEY: misc_feature
      209 <222> LOCATION: (31)..(31)
      210 <223> OTHER INFORMATION: D = A or G or T
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Input Set : A:\11899.0193.DVUS02.ST25.txt
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```
       212 <400> SEQUENCE: 7
W-->   213 gggaattcgg atccgadabb tngcngabaa dta                          33
       216 <210> SEQ ID NO: 8
       217 <211> LENGTH: 32
       218 <212> TYPE: DNA
       219 <213> ORGANISM: Artificial sequence
       221 <220> FEATURE:
       222 <223> OTHER INFORMATION: Oligonucleotide
       224 <400> SEQUENCE: 8
       225 gggaattcgg atcctttttt tttttttttt tt                          32
       228 <210> SEQ ID NO: 9
       229 <211> LENGTH: 327
       230 <212> TYPE: DNA
       231 <213> ORGANISM: Alfalfa
       234 <220> FEATURE:
       235 <221> NAME/KEY: misc_feature
       236 <222> LOCATION: (244)..(305)
       237 <223> OTHER INFORMATION: N = A or C or G or T
       239 <400> SEQUENCE: 9
       240 gagaatttgg cggataagta taggggacca tgctttagtg gttgtgacac tcactgcaca   60
       242 accaaagaga acgcagttag tggaaggtgt agggatgact ttcgttgtta gtgtactaaa  120
       244 agatgttaaa tggatctcct ccaacatcaa gatgtgcatg gaatagtctt tataataaaa  180
       246 ctaaataaat aaaatgcacg cagtatagct acaacttcat ctatatatat gtactcaata  240
W-->   248 tcgngcataa cgtattagtt atgcacttct atcatatgga ataaacatca ataagtaatt  300
       250 tcgtntccaa aaaaaaaaaa aaaaaaa                                     327
       253 <210> SEQ ID NO: 10
       254 <211> LENGTH: 507
       255 <212> TYPE: DNA
       256 <213> ORGANISM: Alfalfa
       259 <220> FEATURE:
       260 <221> NAME/KEY: misc_feature
       261 <222> LOCATION: (17)..(485)
       262 <223> OTHER INFORMATION: N = A or C or G or T
       264 <400> SEQUENCE: 10
W-->   265 gggggggggg gggggntgt caaacacaca cataacacat aagtgaccgt gagtcattaa   60
       267 atttatatat attcatcaat ctaatcaaac tatggagaag aaatcactag ctggcttatg  120
       269 cttcctcttc ttggttctct ttgttgcaca agaaattgtg gtgacagaag ccagaacatg  180
       271 tgagaatttg gcagataaat ataggggacc atgctttagt ggttgtgaca ctcactgcac  240
       273 aaccaaagag aacgcagtta gtggaaggtg tagggacgac ttccgctgct ggtgtactaa  300
       275 aagatgttaa atggatctcc tccaacatca agatgtgcat ggaatagtct ttataataaa  360
       277 actaaataaa taaaatgcac gcagtatagc tacaacttca tctatatata tgactcaata  420
       279 tcgngcataa cgtattagtt atgcacttct atcatatgga ataaacatca ataagtaatt  480
       281 tcgtntccaa aaaaaaaaaa aaaaaaa                                     507
       284 <210> SEQ ID NO: 11
       285 <211> LENGTH: 62
       286 <212> TYPE: DNA
       287 <213> ORGANISM: Artificial sequence
       289 <220> FEATURE:
       290 <223> OTHER INFORMATION: Oligonucleotide
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Input Set : A:\11899.0193.DVUS02.ST25.txt
Output Set: N:\CRF4\08272004\J010731A.raw

```
292 <400> SEQUENCE: 11
293 ggggatcccca atctaatcaa actatggaga agaaatcact agctggctta tgcttcctct    60
295 tc                                                                     62

298 <210> SEQ ID NO: 12
299 <211> LENGTH: 47
300 <212> TYPE: DNA
301 <213> ORGANISM: Artificial sequence
303 <220> FEATURE:
304 <223> OTHER INFORMATION: Oligonucleotide
306 <400> SEQUENCE: 12
307 ggggatcctt aacatctttt agtacaccag cagcggaagt cgtccct                    47

310 <210> SEQ ID NO: 13
311 <211> LENGTH: 250
312 <212> TYPE: DNA
313 <213> ORGANISM: Alfalfa
315 <400> SEQUENCE: 13
316 ggggatcccca atctaatcaa actatggaga agaaatcact agctggctta tgcttcctct     60
318 tcttggttct ctttgttgca caagaaattg tggtgacaga agccagaaca tgtgagaatt     120
320 tggcagataa atataggggga ccatgctttta gtggttgtga cactcactgc acaaccaaag   180
322 agaacgcagt tagtggaagg tgtagggacg acttccgctg ctggtgtact aaaagatgtt     240
324 aaggatcccc                                                            250

327 <210> SEQ ID NO: 14
328 <211> LENGTH: 40
329 <212> TYPE: PRT
330 <213> ORGANISM: Alfalfa
332 <400> SEQUENCE: 14
334 Ala Thr Cys Glu Asn Leu Ala Asn Thr Tyr Arg Gly Pro Cys Phe Gly
335 1               5                   10                  15
338 Gly Cys Asp Phe His Cys Lys Thr Lys Glu His Leu Leu Ser Gly Arg .
339             20                  25                  30
342 Cys Arg Asp Asp Phe Arg Cys Cys
343         35                  40

346 <210> SEQ ID NO: 15
347 <211> LENGTH: 72
348 <212> TYPE: PRT
349 <213> ORGANISM: Alfalfa
351 <400> SEQUENCE: 15
353 Met Glu Lys Lys Ser Leu Ala Gly Leu Cys Phe Leu Phe Leu Val Leu
354 1               5                   10                  15
357 Phe Val Ala Gln Glu Ile Val Val Thr Glu Ala Arg Thr Cys Glu Asn
358             20                  25                  30
361 Leu Ala Asp Lys Tyr Arg Gly Pro Cys Phe Ser Gly Cys Asp Thr His
362         35                  40                  45
365 Cys Thr Thr Lys Glu Asn Ala Val Ser Gly Arg Cys Arg Asp Asp Phe
366     50                  55                  60
369 Arg Cys Trp Cys Thr Lys Arg Cys
370 65                  70

373 <210> SEQ ID NO: 16
374 <211> LENGTH: 67
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RAW SEQUENCE LISTING ERROR SUMMARY   DATE: 08/27/2004
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Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the
Sequence Listing to ensure that a corresponding explanation is presented in the <220>
to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; Xaa Pos. 40,41
Seq#:3; N Pos. 16,22
Seq#:4; N Pos. 18,19,23,24,28,29
Seq#:5; N Pos. 1
Seq#:6; N Pos. 17,265
Seq#:7; N Pos. 22,25
Seq#:9; N Pos. 244,305
Seq#:10; N Pos. 17,424,485

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Output Set: **N:\CRF4\08272004\J010731A.raw**

```
L:45 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:32
L:113 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0
L:131 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:0
L:146 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:0
L:167 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:0
M:341 Repeated in SeqNo=6
L:213 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:0
L:248 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:240
M:341 Repeated in SeqNo=9
L:265 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10 after pos.:0
M:341 Repeated in SeqNo=10
```